



www.visaeu.com

Visa EU

When Visa EU's website was reviewed by SCN in April 2002, it was received very positively. Since then, the site has been extensively redesigned. Happily, the new version lives up to the high standards set by its predecessor. It is obvious from the first page that a lot of research and lateral thinking has been invested in the new site. The traditional blue and gold branding is as strong as ever; and clever use of Flash on the front page helps reinforce the idea of Visa as a 'lifestyle choice', without alienating those who aren't Flash-enabled. The text is informative, yet sparingly written throughout, and the structure indicates that Visa EU has identified several interest groups amongst its customers; all are catered for equally. It's a pity that the layouts aren't scalable, however: on larger monitors the content can look rather small and the text is fixed at one size, but it is pleasing to note that the page layouts themselves are excellent, and consistent throughout. On balance, a very successful revamp.

- Navigation
- Content
- Appearance

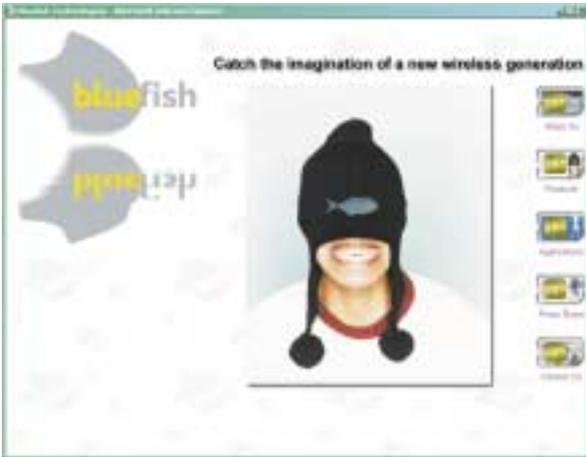


www.zingotaxi.co.uk

Zingo

As reported elsewhere in this issue the company behind the London Hackney cab has launched Zingo, a new service connecting waiting fares with the nearest available taxi via GPS and the customer's mobile phone. For such a simple idea it is good to see that the corresponding website is equally simple and informative. Although much of the content is geared towards taxi history, the paying customer is Zingo's first priority, and the accompanying text is kept brief. The customer's first question must surely be "who do I call for this service?", and the answer is right there on every page as part of the main branding. The graphics are sleek and uncomplicated, and the black, orange and white scheme reflects the timeless design of the London cab, without ever resorting to the sugary nostalgia of retro styling.

- Navigation
- Content
- Appearance



www.bluefish.com

Bluefish Technologies

And now for something completely different...

Without doubt the most bizarre business-oriented website your reviewer has visited in a long time, Bluefish has certainly made its mark as a company to remember! The noted surrealist comedy troupe Monty Python would surely have loved the images on display: shoes styled as fish, oversized hats, etc. Whether they would have made the near herculean effort needed to tear their eyes away from the images and read the accompanying text is another matter. The striking potency of the imagination at work here tends to overwhelm the written content, which is a shame as Bluefish clearly has a portfolio of innovative products to offer. Perhaps punchier writing would have allowed for a more balanced user experience, but this is worth a visit for the inspired lunacy in the images. Bluefish is definitely *not* a dead parrot.

- Navigation
- Content
- Appearance



Zingo Smart Card System for London Taxis

Smart Card, mobile phone and Global Positioning Satellite technologies have been combined to enable customers to hail a taxi in London. The new system, under the service brand name of Zingo, will enable passengers to call a taxi from the comfort of their chosen location without having to stand on the street or find the nearest taxi rank.

Applied Card Technologies (ACT) has won a long term contract from Zingo, a wholly owned subsidiary of Manganese Bronze Holdings, to design, develop and supply in-cab software systems and terminal hardware to over 3,000 licensed London taxis.

Zingo, uses a Global Positioning System (GPS) and Location Based Services (LBS) from the main mobile phone networks to establish the position of the customer and the nearest available licensed taxi before connecting passenger to driver.

Calls are only routed to taxis that are available for hire. The terminal will enable drivers to verify and accept credit and debit card transactions using a built-in magnetic stripe reader, as well as the capability to accept EMV (Europay/MasterCard/Visa) Smart Card-based methods of payment as they are introduced by banks in the run-up to the 2005 industry deadline.

Drivers log on to the system at the beginning of their shift by means of a Smart Card inserted into the in-cab terminal. The system then relays GPS location, hire status and the driver's mobile phone details to the back office.

Mike Durham, Zingo's Commercial and Financial Director, said: "The new ACT based Smart Card solution is a key element in delivering benefits to Zingo passengers and drivers alike. Taxi drivers will benefit from the greater levels of business offered by Zingo. Passengers will benefit from improved levels of safety, convenience and time efficiency."

Initially Zingo is available to taxis across London. However, it is envisaged that following this initial phase, the service will be rolled out across the country to the approximately 60,000 licensed Hackney Carriages in the UK.

Gary Watts, Managing Director, ACT, said: "This new service will create the next generation of black cabs for both drivers and customers, with no more waiting endlessly in the rain for customers, and less idle time for drivers. By harnessing the power of modern transport and payment technology from ACT, this new service will also be able to provide secure credit card payments for customers."

Website

■ Applied Card Technologies

 www.card.co.uk

Smart Cards Now is published monthly by Smart Card News Ltd PO BOX 1383 Rottingdean Brighton East Sussex BN2 8WX England
Telephone : + 44 (0) 1273 515651 • Fax : + 44 (0) 1273 516518 • General Enquiries : info@smartcard.co.uk ISSN 0967 196X

Managing Director Patsy Everett ~ patsy.everett@smartcard.co.uk • News Editor Jack Smith • Technical Advisor Dr David B Everett
Graphic Designer David Lavelle ~ david.lavelle@smartcard.co.uk • Customer Support Amanda Pearce ~ amanda.pearce@smartcard.co.uk

This Issue's Guest Contributors Jason Smith • Jon Barber • Dr David B Everett

Russian Agent : Alex Grizov Recon Company "Sport Hotel" 5th Floor Leninsky Prosp., 90/2 Moscow 117415 Russia
Telephone : +007 095 131 92 92 • Facsimile : +007 095 131 92 65 • e-mail : recon@ropnet.ru

Editorial Consultants Dr Kenneth Ayer • Peter Hawkes • Simon Reed • Robin Townend

Printed by DAP (Sussex) Ltd. Telephone : +44 (0) 1273 430430

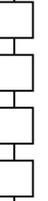
Please Note

From time to time, *Smart Cards Now* may include industry forecasts and forward looking statements made by the companies concerned. Readers should be advised that Smart Card News Ltd cannot be held responsible for decisions and/or actions taken by readers of our newsletter, based on the information provided including any errors therein, nor are we responsible for the opinions of the individual authors.

Don't Forget!

Our Website containing daily News On-Line, and information about the full range of SCN services, can be found at the following address: www.smartcardgroup.com

Certain images featured in this issue obtained from IMSI's MasterPhotos™ Collection 1895 Francisco Blvd. East, San Rafael, CA 94901-5506, USA





Smart ID Cards White Paper

Government agencies and commercial businesses alike are attracted to the dual advantages of higher security and more applications when using Smart ID cards according to a new Smart Card Alliance white paper.

Randy Vanderhoof, Executive Director of the Alliance, said: "Now that information security is a boardroom issue and not just a technical issue, organisations are starting to do something about it. They are introducing a new generation of smart IDs that use the embedded computer chip for active security and anti-counterfeiting measures, biometrics and network authentication.

"One of the most important aspects of this is that these credentials can be machine verified, putting security into the realm of an encrypted, digitally signed and virtually counterproof credential, an advantage that is very attractive to the US government."

The White Paper provides a comprehensive look at physical access control systems that use a smart ID card for personal identification and includes brief profiles of Smart Card implementations.

The report, *Using Smart Cards for Secure Physical Access White Paper*, is available free at www.smartcardalliance.org

First EMV Cards in Philippines

BancNet, MasterCard and Mondex are to introduce Smart Card-based EMV-compliant ATMs in the Philippines. MasterCard will support BancNet in its move towards EMV compliance while Mondex will provide a framework for an e-purse system.

UK Government Smart Card Policy

The Office of the e-Envoy, a department in the UK government is seeking feedback on its recently published Smart Cards Policy Framework which seeks to identify key issues in the roll-out and development of Smart Card-enabled services across the public sector.

Smart Cards play a significant role in the Office of the e-Envoy's overall channels strategy. This promotes a co-ordinated approach for multi-channel strategies across the public sector for the delivery of e-government services.

Comments are sought from the private sector, industry, the voluntary sector and interested individuals by 31 October 2003.

The document is available for download at www.govtalk.gov.uk, in PDF and RTF formats.

Ingenico to Outsource Production

Ingenico is to outsource internal production of its payment terminals to MSL (Manufacturers' Services Ltd.) making MSL the group's strategic supplier. For this purpose, MSL is acquiring the manufacturing assets of the Barcelona plant, Ingenico subsidiary Telesincro SA. The manufacturing unit, acquired from Bull in 1999 and employing nearly 300 people, has been the group's sole internal production site to date. It provides 40% of the group's manufacturing requirements, ie, 600,000 payment terminals designed essentially for the European market.

Initially, the agreement covers the manufacture and customisation of Ingenico's terminals and associated services for continental Europe. Plans are to extend the agreement to other regions, particularly in Asia.

MSL, based in Boston, is one of the top electronics to-order manufacturers and systems assemblers. It has 13 plants throughout seven countries and reported 2002 sales of nearly US \$900 million.

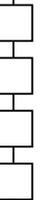
DZ EMV Cards for Malaysia

DZ Card is to manufacture and personalise Euro-pay/MasterCard/Visa (EMV) Smart Cards for Visa in Malaysia.

Intellect Success in Belgium

Intellect has secured a A\$2 million deal to deliver another major installment of unattended transaction devices to Banksys in Belgium following a successful pilot using the devices for petrol payments. The development of the device was a collaborative effort and combines components from Intellect's SOLO 530p with the Banksys C-ZAM/SMASH payment module.

Unattended petrol payments form the foundation of the petrol sales model in Belgium. Intellect OPT 1600s (also an Intellect-Banksys co-development) are currently the standard unattended payment device in petrol stations throughout Belgium. However, these devices are reaching the end of their lifecycle and an upgrade program is underway.





Schlumberger Bank Card Contract

Schlumberger Smart Cards & Terminals has won a four-year contract to supply over 2.5 million e-galleon Smart Cards per year to National Australia Group Europe. The banking arm of the group, National Australia Bank Limited, owns Clydesdale Bank, Yorkshire Bank, Northern Bank and National Irish Bank in the UK.

The project marks the first time Schlumberger cards will be used to support dual currency, using pound sterling for UK transactions and euros for the Republic of Ireland.

ExpressPay Pilot Expanded

American Express has expanded its ExpressPay pilot in the greater Phoenix area to more than 175 merchant locations. ExpressPay is a fee-free, key fob developed in conjunction with Texas Instruments Rfid Systems, and offers a quick, convenient and contactless way to make everyday purchases.

Users simply hold the ExpressPay key fob next to a reader at checkout to make purchases. Payment is authorised in seconds and no signature is required. ExpressPay links directly to an existing credit, charge or debit card to fund the purchase.

Access Control System

Banque-Tec in conjunction with Chubb Electronic Security has deployed a Smart Card-based access control solution for the Defence, Science & Technology Organisation in Adelaide. Over 5,000 personnel are using the Mifare access card and Banque-Tec's access control readers for access to secured areas within their facility.

The company, with Siemens Building Technologies, has also provided a Smart Card-based access control solution for the Queensland Institute of Technology in Brisbane, Australia. The technology is compatible with the state's future public transport Smart Card.

New Samsung Smart Card Chip

Samsung Electronics has announced that its new 128K bytes Smart Card chip is now available in mass production. The S3CC9ED chip has 128K bytes EEPROM, 384K bytes ROM and 8K bytes of RAM. It has a Samsung designed 16-bit CalmRISC CPU and 3-DES symmetrical key encryption.

Infineon Expands in China

A joint venture for the assembly and testing of memory ICs (backend) in China is being set up by Infineon Technologies and the China-Singapore Suzhou Industrial Park Venture Co. (CSVC).

A joint facility in the Suzhou Industrial Park, 80 km west of Shanghai, will have a maximum capacity of up to one billion chips a year. Volume production is scheduled to start in early 2005.

The new company will operate under the name Infineon Technologies Suzhou Co., Ltd. Infineon holds 72.5% of the shares and CSVC the remaining 27.5%.

Infineon President and CEO Dr Ulrich Schumacher, said: "With this partnership we are systematically expanding our presence in the future market of China. We will gain access to new customers and aim to capture a 40% share of the market for memory products in China."

GlobalPlatform Device Manual

A users' guide to the device specifications jointly developed by the GlobalPlatform Device Committee (GPD) and the Small Terminal Interoperability Platform Consortium (STIP) is now available for free download from the GlobalPlatform Web site.

The aim of the guide is to increase the number of developers with the knowledge and ability to produce applications that are interoperable across all types of small devices, including mobile phones, EFTPOS terminals, PC-connected secure readers, payphones, parking meters, vending machines and PDAs.

For more information visit ...



Ingenico

www.ingenico.com

Intellect

www.intellect.com.au

Banksys

www.banksys.be

Schlumberger

www.slb.com

Banque-Tec

www.banquetec.com

Infion

www.infineon.com

Global Platform

www.globalplatform.com





Major AFC Contracts

Major contracts have been announced for Smart Card-based automatic fare collection systems for public transport in Australia, Canada, China and London.

Queensland contract for Cubic

Cubic Transportation Systems and its Australian subsidiary have signed a US \$95 million contract with the Queensland Government to design, build, operate and maintain the first Smart Card-based integrated ticketing system and regional services for public transport in South East Queensland.

Smart Cards will replace the existing paper and magnetic tickets and the system will link most urban rail, bus and ferry services in the region.

ERG loses home town tender

Perth-based ERG has lost out in a tender for its home town's Transperth Smart Card ticketing system. ERG was beaten by Delairco Bartrol/Wayfarer Transit Systems, which has been selected as preferred tenderer for the SmartRider contract, worth more than \$30 million.

Rob Noble, ERG's Asia Pacific Managing Director said it was very disappointing not to win the tender but ERG was committed to achieving a positive cash flow and return for shareholders and was not prepared to compromise these principles to gain market share.

"Having recently been selected to supply systems in Seattle, Stockholm, Sydney and Washington DC, which will contribute revenue in excess of \$500 million to ERG, it is very disappointing not to be selected for the contract in Perth," he said.

Delairco is a division of Downer EDI, Australia's second biggest listed engineering, infrastructure and resource services company. Wayfarer, based in the UK, provides bus ticketing systems and recently set up bus and rail Smart Card ticketing systems in Northern Ireland and Sweden.

AFC for Montreal and Quebec

Ascom Monétel, of France, has won a Canadian \$ 66 million contract to set up the fare collection system for the mass transit networks of Greater Montreal and the city of Quebec.

The system will cover the subway, suburban railway and city and intercity bus services in the region. Ascom will install sales and validation equipment on more than 3,000 city and intercity buses, nearly 5,000 automatic gates controlling access to the subway, and more than 300 automatic ticket vending machines that will also be used for reloading travel passes.

Chip cards will be controlled by contactless validators built into fare boxes supplied by US company GFI for handling cash payments. It is expected that 1.2 million travel passes will be issued by the second half of 2004.

Octopus in mainland China project

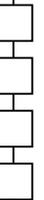
Octopus Cards has won its first Mainland China project to support Changsha, the capital of Hunan Province, in implementing a multi-purpose electronic payment system using contactless Smart Cards. The company developed and operates the contactless transport and payment system in the Hong Kong SAR. The target launch date is 2004.

Changsha Public Bus Group and Changsha International Business Consultancy Company (a Changsha Municipal Government company) have signed an agreement with EasyTran International, a joint venture formed by, amongst others, Octopus and a wholly-owned subsidiary of CyberM International (Holdings), to establish Changsha Easy Card Company.

Easy Card will implement and operate the new electronic payment system in Changsha which has a population of six million. It will be initially used for fare collection by major transportation operators in Changsha (buses and minibuses), for student identification by schools and universities and for payment at canteens, vending machines, photocopiers and sports facilities. The system will be ultimately extended to taxis, retailers and to the leisure sector.

Schlumberger Cards for Oyster

Schlumberger has announced that the TranSys consortium is to use Schlumberger Easyflow contactless Smart Cards with Mifare chips for Oyster, its London transport ticketing and payment program (SCN July 2003). As reported last month, Giesecke & Devrient are supplying around two million contactless cards for the project.





ORGA's Two Million UK Card Order

ORGA Kartensysteme has won an order from Security Printing Systems Limited (SPSL) for the digital tachograph card. Under a long-term agreement, ORGA will supply and embed chip modules into at least two million tachograph cards, which are supplied by Bundesdruckerei, to its British partner in the next five years.

"Our partner ORGA Kartensysteme has very successfully developed a chip module, operating system and application that meets the relevant EU specifications in every respect," said Frank Toner, Chief Executive Officer of SPSL. Bundesdruckerei is producing the card blank with its high security features, and Security Printing Systems Limited will provide the production and data management systems, personalise the cards in conjunction with the DVLA (Driver and Vehicle Licensing Agency) using Maurer technology and ship them in the UK. An EU directive requires that all new trucks and buses be equipped with a digital tachograph as of August 2004. One of the first countries to implement the directive is the UK.

G&D Tachograph Certification

Giesecke & Devrient (G&D) has announced that it has now received the required security certification from Germany's Bundesamt für Sicherheit in der Informationstechnik (German Information Security Agency) and a "Functional Certificate" from the Kraftfahrt-Bundesamt (Federal Motor Transport Authority) for the Tachosmart. Both are prerequisites for the device to be certified for use in vehicles.

Testing of the interaction between individual system components of the digital tachograph can now be carried out at the European Joint Research Center in Italy. As soon as the centre has successfully completed its testing, the final step will be for Germany's Federal Motor Transport Authority to grant its type acceptance of the devices.

Four different Smart Card types are being produced for use with the digital tachograph — driver cards, company cards, workshop cards and control cards for the police.

China Unicom OTA Project

Schlumberger Smart Cards & Terminals is to supply Zhejiang Unicom, a subsidiary of China Unicom, with Simgo, its Java-based Over-The-Air (OTA) service management solution. Zhejiang Unicom will be

the first China Unicom subsidiary to commercialise its OTA services on advanced 64K SIM cards, setting the stage for future development of OTA Short Messaging System (SMS) services.

SPAR Moves to EMV Chip & PIN

SPAR, the world's largest independent supermarket chain, plans to equip 1,200 of its convenience retail stores in the UK to support EMV Smart Card transactions and migration to PIN-based verification.

It will deploy about 2,800 VeriFone SC 5000 PIN-pads in a nationwide upgrade of its franchise network of stores starting in September this year in readiness to meet the January 2005 deadline set for EMV migration.

In addition, this month SPAR will be installing units at selected retailers in Northampton, as part of the UK town trial of Chip and PIN. VeriFone has been involved in the trial since its launch in May this year, and is currently working with leading sports retailers all:sports and JJB Sports, and pet superstore retailer Pets at Home.

To support SPAR's multi-application environment, VeriFone SC 5000 programmable PINpads with integrated EMV Level 2 application will be connected to SparPOS integrated point of sale systems throughout sites in the UK. During the specification process, VeriFone worked closely with SPAR's software partner and integrator, Business Computer Projects (BCP). Adrian Hogarth, Retail Systems Director for BCP, said: "We recommended the VeriFone SC 5000 as the optimal choice for SPAR because of its ease of integration."

Robert McLaughlin, Sales Director for VeriFone EMEA said: "The SC 5000 is the fastest way to upgrade to a highly secure EMV-compatible solution, making it the ideal choice for SPAR."

For more information visit ...



Cubic Corporation

www.cubic.com

Schlumberger

www.slb.com

Ascom

www.ascom.fr

Applied Card Technologies

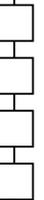
www.card.co.uk

ORGA

www.orga.com

China Unicom

www.chinaunicom.com.hk





Intrusion Detection System

Square One Computer Security Services has announced its latest software offering, Secure Perimeter Advanced Intrusion Detection System, which it claims is the first network security solution designed to meet the guidelines of the US Department of Homeland Security intended to protect financial institutions and critical infrastructure organisations from both domestic and foreign cyber terrorist attack.

Combining a robust firewall with an intrusion detection system, Secure Perimeter offers a one-package solution to help prevent attacks on an organisation's IT systems.

In the event of an attack, the software provides a complete audit trail of the intrusion. The organisation can also choose to send the information to the National Cyber Security Division (NCSA) of the Department of Homeland Security (DHS), or the abuse department at the attacker's Internet service provider.

Secure Perimeter features an encrypted lockdown solution, utilising Smart Card authentication, to prevent attacks like Code Red, Nimda and the newly discovered Microsoft RPC vulnerabilities.

Belgium Roll-out of E-Top-Up

Belgian wholesaler and distributor Lyfra-Partagro has begun supplying its customers with a new GPRS-enabled electronic E-top-up service based on VeriFone's Omni 3750 terminals. VeriFone was independently selected following a competitive tender response led by VeriFone international partner CCV Holland BV.

The solution will deliver prepaid mobile phone E-top up facilities to Lyfra-Partagro's customer base of independent tobacconists, newsagents and kiosks. The project, which began with an initial order for 650 terminals, is expected to reach several thousand units by next year and is currently being rolled out in retail outlets across Belgium following a successful pilot in January.

ID Works in Four More Languages

Datacard Group has announced that the latest version of its identity software ID Works v4.1 is available in French, German, Japanese and Spanish as well as in English. Additional language options will allow multi-national organisations to tailor their ID and badging programs to meet regional needs.

Datacard ID Works software is used for a variety of identity applications worldwide, including corporate and government ID, membership, customer loyalty programs and more. Datacard sells the software separately and bundles it with card printers, cameras, biometric devices and other peripherals to create fully integrated ID systems.

Bioscrypt Secures NYPD HQ

Bioscrypt has deployed a fingerprint security system for the New York Police Department at One Police Plaza in New York City. By the end of the year, over 50,000 police and civilian employees will be issued new badges containing a fingerprint credential created by Bioscrypt's technology.

The system utilises contactless Smart Card technology for the badge and Bioscrypt's V-Smart a combination fingerprint scanner and contactless card reader for access control. Once completed, the system will verify police and civilian employees by comparing the fingerprints of the person bearing the badge with the information stored on a Smart Card.

Los Angeles' City Hall

Bioscrypt has also secured Los Angeles' City Hall building with fingerprint readers to restrict access to the mayor's office and city council chambers.

"We have private entrances to high profile locations that are regularly used by the mayor and many of the city's top executives and staff," said Dwayne Healy of the city's Security Services Division. "These are interior locations in secure buildings, but in the past the entrances had to be staffed with guards. It is the ideal place to use fingerprint biometrics for access control."

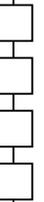
Canadian Air Transport

Bioscrypt also announced that the Canadian Air Transport Security Authority (CATSA) has deployed Bioscrypt fingerprint readers to tighten security measures at the Authority's headquarters in Ottawa.

DNA Sciences and Sequiam Team

Applied DNA Sciences, a provider of DNA-embedded security solutions that protect corporate and intellectual property from counterfeiting and fraud, has entered into a Value Added Reseller (VAR) agreement with Sequiam Corporation of Orlando, Florida.

Sequiam will incorporate Applied DNA Sciences' DNA security technologies into specialised lines of its software and biometric safety and security products.





"This agreement represents a significant opportunity for both companies," said Nick VandenBrekkel, CEO of Sequiam Corporation. "The combination of Sequiam's biometric authentication technologies and DNA as a token identifier gives our clients an almost 100% verification methodology to validate and deny access in a variety of security related areas. The Applied DNA product allows us to truly secure these tokens whether it is a Smart Card, an ID card or single use passes for major events."

Super SmartCard Launch

e-Smart Technologies and its affiliate, Homeland Defense, have launched a new version of Super SmartCard that allows biometric fingerprint identity verification to take place on a standard Smart Card that operates with numerous ISO compatible Smart Card readers.

"With the ever increasing terrorist threat and the concurrent explosive rise in the crime of identity theft there is now the critical need to know that someone is exactly who they say they are," said Tamio Saito, e-Smart's CTO.

Identifying Seafarers

Datastrip says that countries preparing to issue seafarers' identity documents under the new standard established by the International Labour Organisation (ILO) to improve maritime security and combat terrorism can fast track that implementation with Datastrip's two-dimensional bar code technology.

The Datastrip2D system can store two biometric templates, a digitised photo and encrypted biographical information in a small footprint, roughly the size of a magnetic stripe. Identity verification can be performed with Datastrip's DSVerify2D handheld biometric ID card reader capable of decoding fingerprints, text and photographs in one action. The reader includes an optical fingerprint scanner that can match the stored fingerprint template with the cardholder's live fingerprint on the spot, preventing identity fraud.

The Datastrip technology is already being used by the Liberian International Ship and Corporate Registry, which introduced the first seafarers' biometric identification card earlier this year.

MIFARE UltraLight Ticket

BemroseBooth has announced a joint partnership with Philips Semiconductors to provide a smart, low cost contactless, ticketing solution for public trans-

port systems based on the latest addition to Philips Semiconductors' MIFARE family, the MIFARE UltraLight.

Andy Blundell, Business Development Director at BemroseBooth explained: "We have been developing our RFID strategy for some time and this is the first of a series of co-branded solutions which we will be introducing. The Philips MIFARE UltraLight technology coupled with our process expertise in manufacturing tickets at high volume, means that low-cost RFID is now a viable alternative in the mass transit market place."

The MIFARE UltraLight operates in accordance with ISO 14443A, the standard for contactless Smart Cards and enables the easy integration of smart paper tickets into existing ISO-14443A compliant transportation infrastructures, significantly reducing time to market and related installation and operation costs. MIFARE UltraLight-based tickets will be available in credit card size and can be issued by standard credit card ticket vending equipment with a simple contactless reader device upgrade for ticket initialisation. The MIFARE UltraLight has a 512-bit EEPROM read/write memory and operates at 13.56 MHz at a distance of up to 10cms.

LEGIC Technology for STEP

Germany's Stuttgarter Engineering Park (STEP) is using contactless Smart Card technology from LEGIC IdentSystems for multi-functional access and payment facilities.

Some 4,800 contactless cards in use at the site provide access control and time & attendance, an electronic purse to pay for meals and beverages in the casino and for coffee purchased from automatic vending machines. In the fitness centre access control, cash handling and the operation of lockers is achieved via the use of LEGIC wristbands.

For more information visit ...



Bioscrypt

www.bioscrypt.com

e-Smart Technologies

www.e-smarttechnologies.com

Datastrip

www.datastrip.com

BemroseBooth

www.bemrose.com

Philips Semiconductors

www.semiconductors.philips.com

Legic

www.legic.com





A Challenging Year for NDS

by Jason Smith, Microexpert Ltd



Dr. Abe Peled

Since 1990, Rupert Murdoch's NDS Group plc has been a leader in programming, personalising, and supplying Smart Cards to the world's most successful TV operators and providing technological solutions for digital pay-TV. Today, the company has about 30 million subscribers around the world who use NDS Smart Cards to receive their pay TV services. As of 30th June 2003 NDS had recorded an all-time record shipment total of 26 million Smart Cards and they have developed system upgrades and enhancements for many existing customers furthering their Smart Cards interactive applications.

"We remain committed to our strategy of supporting current and new customers to grow their subscriber base, of selling new applications and services to current customers, and of winning new pay-TV customers with a focus on cable. Overall, our aim continues to be to develop and provide technologies which are changing the way in which the world is informed and entertained," NDS stated. This is shown by the 16% growth in NDS's Smart Card subscriber base within the US, Asia and UK, and a broadly level subscriber base in Europe and Latin America.

On the 5th August 2003 NDS announced their unaudited financial results for the quarter ended 30th June 2003 (Q4 FY03), together with its unaudited full year results for fiscal 2003. These results showed NDS had achieved a net profit of £7.2 million for the quarter, which is an increase compared to the previous quarter's result of £5.8 million. This increase is due to NDS winning new business within this quarter and continuing to build on successes in previous quarters which provides them with a good backlog of orders to fulfil in Fiscal 2004.

In this quarter, Bloomberg launched the first interactive financial news channel with NDS Value@TV on Sky following Bloomberg's choice of NDS as their global supplier of interactive television solutions last year. NDS's technology was further boosted by licence income derived from their OpenBet software developed through Orbis.

Asia Pacific is proving to be a continuing growth area for NDS with several new platform launches and the early success of their first broadband application on BBCable in Japan. NDS strengthened their leadership position in Asia Pacific with the contract from Galaxy Satellite Broadcasting for Hong Kong pay-TV operation. NDS is to provide an end-to-end broadcasting system in Hong Kong. It includes NDS's VideoGuard robust conditional access and the first full-functioned EPG in the Hong Kong market. Galaxy Satellite Broadcasting Limited is a joint venture between Intelsat, a leading global communications provider, and TVB, Hong Kong's dominant free-to-air broadcaster. The pay-TV service will be launched by year-end 2003. NDS has also been selected by India's Hathway Cable & Datacom as their prime systems integrator.

NDS has also formed a partnership with Rank and launched a dedicated bingo-style interactive channel 'Fancy a Flutter' on BSkyB. The joint venture channel offers a mix of pay-to-play and play-for-fun interactive games. Fancy a Flutter is delivered securely by NDS Value @TV interactive TV system and uses technologies from its subsidiaries Orbis and Visionik for game/account management and design/application development. Rank provides the fixed odds bookmaker permit, the use of Rank and Mecca brands as well as marketing and customer service expertise. This has helped to increase royalties receivable from set-top box manufacturers in the quarter following declines of recent quarters.

However it is not all good news for NDS as their released accounts showed a decline in revenue for the quarter ended 30th June 2003 which stood at £53.1 million, compared to £65.0 million in the same quarter of the previous financial year. The full year revenues also showed a decline from £240.8 million in fiscal 2002





to £237.2 million in fiscal 2003. One of the reason NDS gave for this drop in revenue was the timing of Smart Card sales to DIRECTV. Shipments of the new generation card commenced in February 2002 and the order was completed in May 2003.

Although NDS margins for the year as a whole are lower than in the previous financial year as a result of revenue mix and volume discounts granted to certain customers, their underlying cost base is lower than 12 months ago. EBITA, before exceptional costs has decreased by 6%, which can be considered to be a creditable performance in the current economic circumstances and compares favourably with their major competitors.

NDS has also faced several litigation issues over the past year, which could account for any losses. To date they are facing lawsuits from US television companies NagraStar and Echostar who have alleged that NDS had broken into their security systems and posted encryption codes on the internet, encouraging hackers to use their competitors' services without paying. In September 2002, NDS and two of its subsidiaries were named as defendants in a lawsuit filed by DIRECTV, Inc. North America's TV largest satellite television company. Later, on 21 October 2002, NDS filed counterclaims against DIRECTV and a chip manufacturer, which continued into 2003. In April 2003, the parties finally agreed to stop proceedings pending efforts to resolve the disputes through mediation. The parties recently have agreed upon settlement terms and expect to sign a settlement agreement imminently.



NDS Smart Cards and Set-top Box

Dr Abe Peled, President and Chief Executive Officer said: "This has been a challenging year for NDS — with a difficult economic environment, and a number of litigation actions. I am proud that our people have remained focussed on business issues without being distracted and they are fully concentrating on supporting our customers and laying the foundation for the future growth of the company. Despite the market remaining flat and cautious, NDS has gained considerable momentum with a number of new platform wins in China, India, Russia and Hong Kong over the year. In addition, we have seen Viasat make the decision to change their conditional access system to NDS, and we have established a strong stake in the Australian market with FOXTEL. NDS remains committed to its core values of technology excellence and service to our customers. This commitment has helped our customers to achieve their ongoing successes and continued revenue growth."

Rick Medlock, Chief Financial Officer, added: "We have had to work hard this year to deliver a solid and profitable financial result in the face of tough economic conditions. We have won new business, which helps the pipeline for the future; we have managed to reduce costs which has helped maintain strong margins, and we have maintained a tight control over working capital helping us to generate significant free cashflow." ❖

NDS Group plc One London Road, Staines, Middlesex TW18 4EX, UK
☎ +44 (0)20 8476 8000 📠 +44 (0)20 8476 8100 • 🌐 www.nds.com





Microexpert Launches Remote Network Access System

by Jason Smith, Microexpert Ltd

Sussex based Microexpert Ltd (www.microexpert.com) has just launched its new Remote Network Access System which will help companies extend their corporate office network remotely and securely to anywhere in the world, using a combination of Virtual Private Network (VPN) technology and secure USB authentication token cryptography

“In today’s global marketplace, the need to communicate business-critical information efficiently and securely to and from remote locations is becoming a crucial success factor. This need alone establishes the business case for installing a VPN gateway into your corporate network,” said Jason Smith, Marketing Manager of Microexpert Ltd.

The increase of Internet access conduits is another element of fuel that is making VPN a hot new piece of technology in this wireless revolution. With broadband becoming cheaper and more attainable, and WiFi technology on the increase, now means that there is a broader range of internet access points available from home connections, cafes, airports, hotels, conference centres and even on the beach in Brighton, UK (www.pier-topier.net).

VPN benefits from these developments because it uses the internet as an inexpensive bridge to connect remote users to their corporate network, allowing them full rights and privileges as if their computer was actually connected to the corporate LAN. Once connected remote users have access to all shared software, files, documents, databases and the company’s network server. They can receive and transfer any information between machines, send and receive e-mails via their company account and they even have the ability to print to the office laser printer just as easily as if they were physically sat in the office.

The Remote Network Access System is highly advantageous to companies who need to support overseas travelling executives, on-the road salesman, field engineers working on customers sites, or just those people who need to work from home. The gateway is highly secure and brings greater freedom, flexibility and convenience to employees and employers. It also allows companies to extend their corporate network to smaller locations and/or multi branch outlets securely and cost effectively without the need for additional leased lines, thus reducing the costs that are incurred by leased lines and frame relay networks.

An additional benefit of this new Remote Network Access System being offered by Microexpert Ltd is the added security that comes from the USB tokens supplied in conjunction with the service. USB tokens offer a Smart Card-based network login system without the need for a card reader. Instead, the device plugs into a computer’s standard universal serial port offering a fully portable and cost-effective means to authenticate users and to digitally sign sensitive business transactions.

These devices are the size of a standard house key and allow you to store all your security passwords and desktop settings giving you the ability to use any machine anytime and have all your settings the way they are on your own PC.

“USB tokens are supplied with Microexpert’s Remote Network Access System because it is an ideal marriage which saves a significant amount of money for a company with multiple employees needing to access a virtual private network from both home and work,” says David Everett, Chief Executive Officer of Microexpert Ltd.

Just imagine it! Being able to work from anywhere at any time from any computer and have a secure, simple and cheap link-up to your office’s network facilities. You could be sitting on the beach, in the car or in a hotel





room and be able to access all your office's resources from a single dial-up connection. No more 'leaves on the line' or other gruelling disruptions to your journey into the office. No more need to confine your office to one small geographic area: the world is your office!

So how does it all work, I hear you ask? Well the user accesses the Internet in the normal way - either through a dial-up modem or broadband connection to their Internet service provider. Once online the VPN client software automatically establishes a secure connection to your corporate network. You are then prompted for a password to login and allow you access. Once this has been fulfilled a secure link is established through a security firewall. Then you are given complete access to shared files and all the internal facilities available on your corporate network securely. The whole process only takes a few moments, and is totally transparent to the remote user.

The secure link-up works by forming a virtual 'tunnel' though the Internet from the user's machine to the company's network. This 'tunnel' then forms the basis of a protected seal for the established communication. Data that is sent through the 'tunnel' is encrypted at the sender's end then decrypted at the receiving end. This means that no data that is not properly encrypted can enter the secure link-up. This also means that no unauthorised access to the network can be established by any malicious intruder, or your transmitted data being intercepted by others.

David Everett summed up by saying: "The main advantage for an organisation to install a VPN system with USB token cryptography is obvious: it extends their office network on a global scale, it reduces their operational costs versus traditional WAN, it reduces transit time and transportation costs, it improves productivity and is a scalable, inexpensive and secure remote access solution for home workers, field engineers and travelling executives."

If you are interested in finding out more about Microexpert's Remote Secure Access System and how it can benefit your organisation, or you would like one of our consultants to visit your company in regards to installing the system onto your corporate network, then please contact Jason Smith at Microexpert Ltd on 01273 517015 or email your enquiry to jason.smith@microexpert.com ❖

Corporate News

Changes at ORGA

Dr Matthias Eickhoff handed over his responsibilities as Chief Financial Officer of ORGA Kartensysteme on 31 July as scheduled, and has left the company. He will, however, continue as an adviser to ORGA for a transitional period, to assist his successor Oliver Jaster. Eickhoff oversaw a policy of reconstruction and focussed realignment, streamlining cost structures and processes.

Oliver Jaster, a former member of the Advisory Council of ORGA, took over on 1 August as CFO and board member.

Also joining ORGA is Juan Carlos Garcia who will assume responsibility for operational management as the company's Chief Executive Officer.

New President for DCS

Bob Carne of Chicago, former Worldwide Digital Identification Systems Sales Manager for Polaroid Corporation in Waltham, Massachusetts, has been named President of Digital Card Systems America.

Bluefish Expands in Europe

Bluefish Technologies, a SIM card and solutions provider, has opened a new office in The Netherlands to extend its coverage of the European mobile telecommunications market. The company already has offices in the UK and Portugal.

Websites

- **Square One Computer Security Services**
www.square1comsec.com
- **Verifone**
www.verifone.com
- **CCV**
www.ccv.nl
- **Datacard**
www.datacard.com
- **Bluefish**
www.bluefish.com





The Business Case for Smart Cards

by Dr David B Everett, Technical Director, Smart Cards Now



Dr David B Everett

The Smart Card industry has over the last decade 'Crossed the Chasm'. In his seminal work (ISBN 1-84112-063-4) Geoffrey Moore identifies the chasm (see figure opposite) between the early adopters and the early majority as being the most probable point of failure in any new project. In practice of course the Smart Card is only the instrument; it is the project itself that really matters. So the Smart Card industry is totally dependent on the business case that determines whether or not a Smart Card is the appropriate tool to meet the project's needs. No matter that the high tech industry is currently in some form of recession although there are now some signs of an upturn, what we can show is that we are in Moore's period of the 'early majority'. The worst is behind us and there is a bright future lurking out there waiting to be grasped.

I would plead guilty to being one of those who felt that ten years ago or more that the Smart Card role in business was well established when in practice it bumped along the ground for an embarrassing number of years. So what were the turning points? At what stage did we pass from innovators to early adopters to early majority?

The telecommunications industry were the innovators that really got Smart Cards off the ground. Initially it was France Telecom and the memory cards used for pay phones and then ETSI (European Telecommunications Standards Institute) with the specification of the microprocessor SIM card used in GSM phones.

What was the business case that made these projects flourish by using Smart Cards, or might they have done just as well with some other technology? The pay phone is easy to understand, the business requirement was to replace coins in the phones because of the cost of cash management. This is not only the cost of collecting the cash but also the high maintenance necessary to support the cash mechanisms. Although having a more available system is an advantage to the consumer he can also be persuaded by restricting choice. If you have three payphones taking cards and one taking coins then queuing theory will soon lead you to getting a card.

Next the business has to look at the technology options, initially prepaid phone cards were issued in the late 70s using magnetic stripe cards. BT in the UK moved to the Landis and Gyr optical card, so what drove France Telecom to the Smart Card? Clearly the optical card and certainly the magnetic stripe card were much cheaper than the Smart Card. Magnetic stripes are of course easy to counterfeit, a simple copy can be taken by using a warm iron against the source tape and readily available video tape without the need for any electronics. Both the Smart Card and the Landis and Gyr card were considered to be more difficult to counterfeit and this is undoubtedly true but both were subject to attack. The mechanism was the same in both cases which was to interfere with the memory write. Nail varnish was used to reduce the burning power of the laser with the optical card whilst removing the high voltage needed to write to the memory card had the same effect. You may wonder why the units were not burned and validated before providing the service but such vulnerabilities were promulgated to the early bank cards where hackers prevented the PIN counter from being written to memory allowing an exhaustive search. However ignoring these implementation shortcomings the payphone card is clearly based on the requirement for



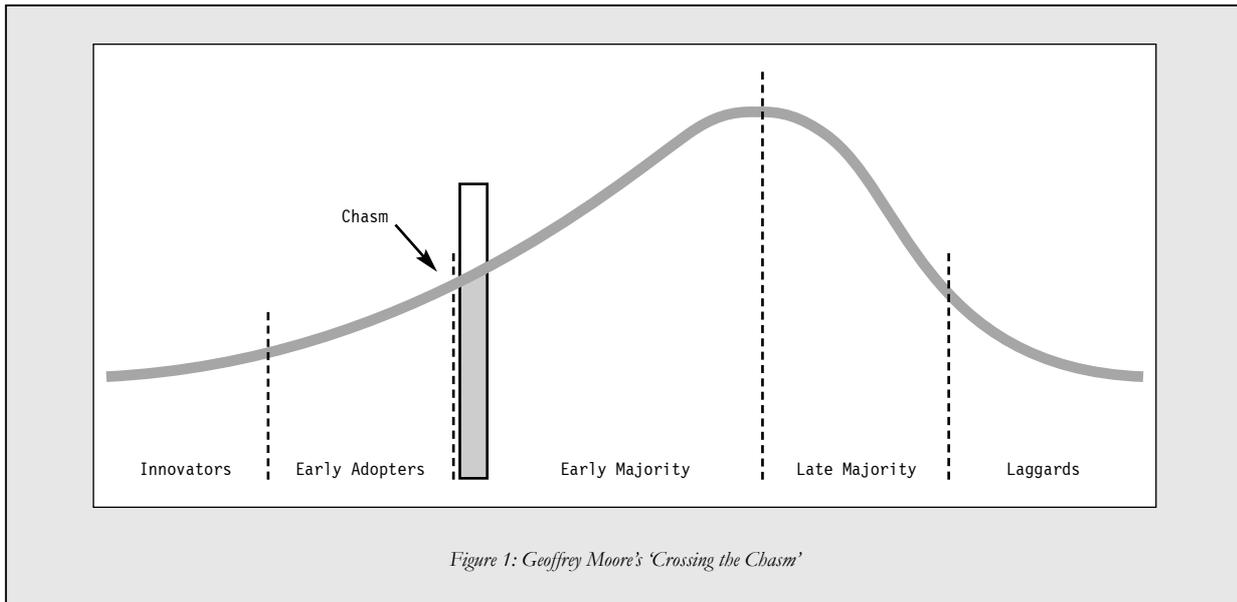
Events Diary	
September	
23 - 25	Mobile Commerce World 2003, ExCeL, London, UK Tel: +44 (0)207 827 5981 Website: www.mobilecommerceworld.com
25	Revenue Management 4 Retailers Merchandising Planning and Price Optimisations Strategies, Marriott, Grosvenor Square, Mayfair, London, UK Website: www.retailerevents.co.uk
October	
8 - 9	ASROC - Alternative Payment Processing Conference, Le Meridien Waldorf Hotel London, UK Tel: +1 (212) 722 - 1744 Website: www.asroc.com
19 - 23	10th World Congress and Exhibition on Intelligent Transport Systems and Services, IFEMA, Madrid, Spain Website: www.madrid2003.itcongress.org
29 - 31	Biometrics 2003, Queen Elizabeth II Conference Centre, Westminster, London, UK Tel: +44 (0)1743 241289 Website: www.biometrics-2003.com
29 - 31	9th Annual Cards Africa 2003 Sandton Convention Centre, Johannesburg, South Africa Website: www.cards-worldwide.com/2003/cards_ZA
30 - 31	ID Smart: Cards for Government & Healthcare, QE II Centre, London, UK Website: www.idsmartconference.com



a secure portable store of data. In this case the data is the units representing the prepaid value of the phone calls. The Landis and Gyr card was cheaper than the memory card but the readers were far more complicated and had a much higher maintenance overhead which negated much of the advantage of the card.

The GSM phone system has often been criticised for its security but this belies a system that is now at least 15 years old. In fact the underlying concepts are very sound. There is a cryptographic authentication mechanism based on a challenge and response protocol and the communications path between the handset and the network is encrypted. Any cryptographic algorithm needs to be regularly reviewed and upgraded as necessary and with any global interoperable system this takes time. The problem is no less within the financial world.

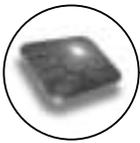
The interesting decision taken by ETSI was to adopt the SIM (Subscriber Identity Module) as a portable Smart Card albeit in a smaller form factor. The SIM is the element of the phone that is authenticated, but it also carries out the key management for the encrypted voice channel. In addition the SIM card is also used as a portable store of user phone numbers. In fact it was this latter requirement which drove the industry towards the high EEPROM memory. The early cards had 8Kbytes of non volatile memory which at that time (late 80s) was very much the state of the art. In fact 1Kbyte of EEPROM was the norm. In this particular case cost was not the overriding factor because it could be managed within the cost of the phone. The portability of the SIM card enabled the user to move from phone to phone whilst maintaining a secure relationship with his mobile operator. The phone is provided by the service provider and is part of a separate relationship with the customer. The success of this strategy is clear since just about every mobile communication system either already invokes a user identity module or is moving towards incorporating such a device. The business requirement was clearly for a secure portable store of data. Authentication is the process of proving to a verifier that you know a secret and this is the data that is protected by the Smart Card. The requirement for security in terms of the user phone list is much less and yet it is this factor that is largely responsible for the cost of the SIM card. However in this case it is difficult to see how you could have effectively used a dual technology. Today with faster data links to the mobile phone your database could be stored by the network operator.



Cartes Bancaire in France were the innovators in the financial industry that first encouraged the use of Smart Cards across all the French banks. The business case was founded on the need for a more secure payment instrument. This happened in the early 90s and it is only now, some ten years later, that the rest of the world is following under the direction of Visa and Mastercard with the EMV (Europay, Mastercard, and Visa) specifications. The argument has always been whether the fraud risk warranted the use of the significantly more expensive Smart Card. At that time you could not make the case against the current fraud level; it had to be based on future projections for fraud. Arguably the French banks were ahead of their time but it is now generally agreed that there is a business case based around security if you take the most basic Smart Card with a cost of much less than \$1. In the early 90s that objective looked plausible for the future but the cost would have to be carried for a number of years.

In all cases you can see that the core of the business requirement centres on the need for a secure, portable store, of data. It is my opinion that if either requirement is missing then there will be a better business case with an alternative technology. ❖





IBM's JCOP Card: A Developer's Perspective

by Jon Barber, Microexpert Ltd



Jon Barber

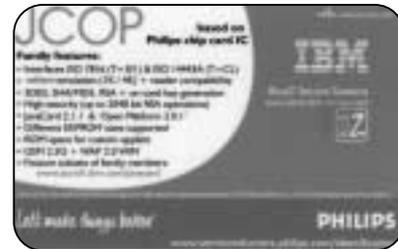
I was searching the web the other day for details of a problem with the IBM JCOP 20 Smart Card, and was suddenly struck by a very telling observation: all the JavaCard discussion forums seem to be dominated with the JCOP card, and very few others get a look in.

It didn't really surprise me, as Microexpert has been developing on the JCOP card for some time, and it is my preferred JavaCard implementation. In this article I'll give the reasons why I like the card, and maybe you'll be tempted to try it yourself.

Specification

The JCOP (JavaCard OpenPlatform) family of cards comes in various flavours, and full details can be seen at the JCOP web site¹. However, to give you a rough idea of what you can get, this is the specification for the JCOP 20 card that we used on a recent project:

- 32k of EEPROM (also available with 8k & 16k)
- JavaCard 2.1.1
- OpenPlatform 2.0.1
- Support for both T=0 and T=1



Availability

A significant problem in developing for Smart Cards is the availability of cards. Often obtaining small quantities is very expensive and time consuming. This is not currently the case with the JCOP cards. Small quantities can be purchased from the JCOP web site, or from the increasing list of suppliers that can be viewed there.

Sample cards are also delivered with the toolkit (see below), but at IBM's discretion different members of the JCOP family can be substituted at your request. Handling of orders from IBM is very quick, and we often get delivery within two working days in the UK.

My company recently wanted to purchase a modest number of JCOP cards, and we approached ORGA in the UK for a quote. I was expecting either no response or indifference based on past experience of other Smart Card suppliers, but was pleasantly surprised by the cost and turnaround time.

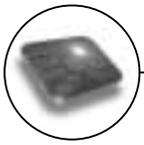
Toolkit

IBM makes available a toolkit that can be used to develop for the JCOP cards. This is available for a nominal handling fee, which at the time of writing was 75 CHF. As mentioned above the toolkit comes with two cards, one 32k contact-only and one 16k dual-interface cards (JCOP21id and JCOP31bio). The toolkit also comes with an emulator for every member of the JCOP family (14 varieties in the most recent release).

Updates to the toolkit are free of charge and can be downloaded from the web site, and seem to appear roughly every six months. This is a refreshing change from other card vendors, when updates are often not free, even for minor point changes, and hard to get hold of.

The toolkit runs under both Linux and Win32, with most of it being written in Java. It does consist of a rudimentary GUI, but all the tools can be used from the command line that makes integration with existing tools easy. We have made available the scripts used to integrate with Ant on our web site, for example.





The toolkit comes with a shell where the card can be manipulated interactively. Scripts can also be executed which means that frequently repeated tasks can be automated.

The command line aspect may seem trivial, but in fact it is extremely important. It makes personalisation of a large number of cards simple and automated builds and loading cuts down errors in development. Automated testing is also made possible so regression and soak tests can be run continually.

The JCOP team is developing a plugin for the very popular (and free) Eclipse² development environment. This is bound to be a very popular move, and a very astute one. Making the tools easy to use and inexpensive guarantees the JCOP card will be used in many prototype projects.

Performance

Microexpert first used the JCOP 20 cards about two years ago for use as a secure access module (SAM) in a citizen card project. The SAM held cryptographic keys and performed DES and 3DES operations on supplied data without the keys leaving the card.

We had initially developed using another well-known JavaCard implementation, but it did not support OpenPlatform at the time. It used a proprietary loading scheme that was not secure and availability of cards was poor.

We moved to using the JCOP 20 card after we had the initial revision of the SAM code working. Thanks to the JavaCard API just a few minor changes related to the cryptography calls were needed, and we had functioning SAMs. The most marked difference was the speed increase in the cryptography, about twice as fast in the DES and 3DES functions. As this was the main function of the SAM we were extremely pleased.

Support

The JCOP team has responded to our support requests in a very timely, friendly and open manner. The issue I referred to in the opening paragraph is a minor one and a member of the JCOP team directed me to the public forum where it had been documented in the past. The ability to speak with the actual team who developed the card is extremely valuable and results in quick resolution of problems.

IBM as a whole has taken Java and open source projects to heart, and many people hold the view that IBM has done more for Java than Sun. This is reflected in the JCOP team, who supports several initiatives in this arena.

Firstly they are creating the JPCSC library, which serves as a bridge between PCSC and Java. JPCSC is used in the toolkit but is also available separately. They also have given support to the MUSCLE³ project, which is a PKI implementation for numerous operating systems and Smart Cards. All these point to the JCOP team being familiar with the latest movements in the community and vitality to their work.

Conclusion

The JCOP family of Smart Cards from IBM offers excellent implementation of the JavaCard and OpenPlatform standards at a very reasonable cost. The availability of both the cards and tools make them ideal for all sizes of projects. They are my JavaCard implementation of choice, and I can't really see that changing any time soon. ❖

References

- ¹ www.zurich.ibm.com/javacard
- ² www.eclipse.org
- ³ www.linuxnet.com





Smart Card News On Line: Round-Up

Smart Card Group's *Smart Card News On Line* service is emailed to subscribers every working day, reporting on industry events as they happen. This service is available FREE to *Smart Cards Now* subscribers (£100 per year for non-subscribers). For further details and to sign up please contact Amanda Pearce — amanda.pearce@smartcard.co.uk; tel: +44 1273 515651 (further contact details are available on page 143). Here's a selection of the headlines we covered in July:

Banking and Finance

- Cartasi signs up to Visa Direct
- Canada to Wait for Visa Smart Cards
- Added Value Solutions for EMV Terminals
- Gemplus and Universal Kart Announce EMV Partnership in Turkey
- NOMAD Software Launches Outsourced Debit Card Issuing Service
- VeriFone Payment Terminals Selected by China Union Pay
- First EMV MasterCard Launched in South Asia, Middle East and Africa
- First EMV Cards in Philippines Launched by BancNet
- UTI-ISL Issues Permanent Account Number Cards
- China Construction Bank Orders Todos eCode
- QI Systems Retains Investment Banker and Financial Adviser
- ExpressPay Will Do Nicely
- Mass Roll-out of Visa Cards in Poland and Czech Republic
- TowerGroup Forecasts \$124 Million in 'Top-ups
- HSBC Malaysia Chooses Welcome for EMV Cards
- Visa Announces New Smart Card for US\$1.98
- MSL Selected by Ingenico as Supplier of Payment Terminals
- Visa Asia Pacific Launches Verified by Visa in China
- America On Line Launches Prepaid Cash Card for Teens
- Nexus Software and CreditCall Create EMV Solution for ATMs

Corporate

- ACG Increases Majority Sharehold in Smart Card Software Company to 100 Percent
- Japanese Consortium Invests in Thailand
- ACG Acquires Logos
- Baltimore Sale
- ProEda becomes new LEGIC partner
- Setec Wins Contract
- A Win for SchlumbergerSema
- Arcot to Deliver to Turkish Merchants
- CardBASE and NBS Card Technology Sign Marketing Agreement
- SuperCom and PerfectData Announce Merger Agreement
- Catusy Signs Licensing Agreement with Maritz
- Aconite and ITS in Middle East Partnership
- ActivCard Appoints Two Senior Directors
- Legic Appoints Zucchetti TMC as Italian Licence Partner
- Baltimore Technologies Cancels Plans to Sell
- Gemplus Announces Human Resources EVP Appointment
- Matrics Receives \$20 Million in Funding from Blue-Chip Investors
- Gemplus to Open Headquarters in Bahrain
- Indala Hires Central Regional Sales Manager
- Welcome Real-time and Dronica in Agreement
- Cosmo.ID Appointed as Official LEGIC Consultant
- Bioscrypt Secures NYPD Headquarters
- VASCO to Buy Back Stock from Ubizen N.V.
- LeapPoint Technologies Hires Five Sparrows as Marketing Firm
- Computer Sciences Corporation to Purchase Sema?
- Keycorp Agreement with Provenco in New Zealand
- Savi and Matrics Collaborate on RFID System
- Fargo and ImageWare Announce Distribution Agreement
- VASCO Reports Second Quarter and First Six Months 2003 Results
- New Contract for Schlumberger Smart Cards & Terminals
- Knowledge Systems Buys Questech for \$1.25 Million
- Wave Systems and Cubic Defense Announce Partnership
- ActivCard Announces Investment in Aspace Solutions

Government

- Infineon & German Federal Ministry of the Interior Co-operate on Security
- UK Government "Underestimates" Cost of ID Card
- EU Project Develops Smart E-Polling System
- Canada's Web-4-All Technology Launched in Winnipeg
- Indian Govt Introduces Employment Card Scheme

- US Govt Plans Single Card for all Federal Employees
- US Government Announces Plans for Biometric Passports
- Telos Awarded Contract with Defense Manpower Data Center
- Researchers Report Security Flaws in Diebold e-Voting System
- US Navy to Invest in Six New e-Business Pilots
- India to Press Ahead With eVoting in 2004

Healthcare

- NationsRx Prescription Card Reduces Drug Costs
- Broadband Enables Transfer of Medical Records
- Sydney Northern Health Deploys Banque-Tec Security System
- Records Technology Developed to Improve Patient Care
- Puerto Rico Medical Card Proposal Lacks Support
- Bahrain Hospital to Implement Patient Care Card System
- UK's ID Card Could Block Health Tourists from the NHS

ID and Authentication

- Secure Access Control
- Belgium and France Prepare for National ID
- All Thais to have ID Cards by 2010
- Australians help Japanese Police with Facial Recognition
- ID Card Mooted for Australian Gambling Addicts
- DHS to Pilot Smart ID Card
- Unisys Launches Identity Management Framework
- Banque-Tec Sees UK Growth in Security Cards
- SENSE Holdings Releases New Version of BioClock
- Banque-Tec Delivers Access Control in Australia
- OmniPass Supports Atmel's Trusted Platform Module
- One Million Digital IDs for Brazil
- Specification for Wireless Net ID Card
- Greater Open SSL Security from Eracom
- Card Security Scheme Prompts Heathrow Walk-Out
- Intelli-Check's ID-Check Integrated into Lenel OnGuard Platform
- Bioscrypt Secures Los Angeles City Hall with Fingerprint Readers
- PUC Aims to Double Fingerprint AC700 Series Reader Sales
- Rapidtron Adds Biometrics to Automated Access System
- DNP Develops New Hologram to Counter Card Forgery
- Singapore Passports to Include Biometric Information
- Italian Lawyers Adopt Cards, Digital Signatures and Email
- Queensland Institute of Technology Deploys Access Control Solution
- Heathrow Swipe Card Strikes Averted Following Agreement
- Datatrac Wins 10-Year Extension to Contract with Homeland Security
- CATSA Selects Bioscrypt Readers for HQ Security

Leisure

- Plan to Bar Illegal Users Backfires
- Vienna's Technical Museum Uses Contactless RFID Technology
- Edinburgh Tourism Chiefs Plan Card for Buses and Attractions
- SANparks to Extend Loyalty Card to Foreign Tourists
- RFID Capable Beer Glass
- Trintech to Provide Secure Card Payments to Thermae Bath Spa
- Malaysian Police Arrest Three More Astro Card Counterfeiters

Misc

- Plan to Bar Illegal Users Backfires
- 12 Lakh Smart Cards by Year End
- Another 6.5 Million Oberthur Cards
- Smartran to Offer Business Case Review Workshops
- Another SOLO Success in Belgium
- RBI to Pilot 'Test Smart Cards
- Free White Paper from the Smart Card Alliance
- NTRU Launches Professional Service Group
- Emosyn Continues Smart Card Product Line Expansion
- Datatrac Awarded Integrated Card Production System Contract

Retail

- Healthy Eating to be Rewarded
- Token for Retail Banking
- Verifone to Equip Africa's Largest Food Retailer For EMV
- Card Promotion Offers Sunglasses in UAE Exchange
- Tesco Goes Live With Chip & PIN
- MTA Introduces New Cubic Vending Machines

Technical

- Q-Card Testing Facility
- Banque-Tec Readers in UAE and Saudi
- New Card Reader from Omron
- PDA Turns into RFID Reader
- Renesas to Produce 1 Gigabit Chips
- Smart Labels
- Schlumberger Announces EAL7 Validation
- SCM Microsystems Achieves FINREAD Compliance
- IER, FASVER and INSIDE Develop IHI
- RFID TagTracer-Mobile Launched by ZeitControls
- Test System for Non-Volatile Memory Devices
- AccessID Joins Fargo Technology Alliance
- Computer Security Incidents on the Increase
- Ultra Card Systems Launches iClass Contactless Card Encoder Module
- Sankyo Announces New Motorized Card Reader
- Arrowhead Global Solutions Introduces Nytor Thin Client Devices
- Thales e-Security Launches Guardisk to Secure Laptop Data
- Common Agreement for Smart Tag Reader/Writers
- ACT Adds Schlumberger's MagIC Terminals to Hardware
- Samsung Introduces New 128KB Smart Card Chip
- Kanematsu to Supply CLEARjet's Thermorewritable Card Printer
- Catusy Issued with New Patents from US, Australia and New Zealand
- ACG Launches RFID Reader as Compact Flash Card

Telecoms

- Three Billion Phone Cards from Gemplus
- Mobile Solutions from SAP and Sharp
- Gemplus Delivers Three Billionth Phone Card
- Tap the Phone to Make a Payment
- Sharp and Texas to Supply Camera Phone Components
- VeriFone Chosen by Belgian Wholesaler
- WLAN Group Releases GSM SIM Reuse Protocol
- Schlumberger Launches VIEWS for (U)SIM Applications

Transport

- First Customers for London's Oyster Card
- Bus Operator to Sue
- Compatible Transport Smart Cards
- Cubic Introduces Mobile Ticketing Machine
- Australian Cities Plan Public Transport Ticket Upgrade
- Brunei and Malaysia Plan Smart Travel Card
- A More Secure Way to Transport Goods
- Octopus Wins First Mainland China Project in Changsha
- Zango Hires ACT For London Taxi Card System
- Pilot for American Transport Workers ID Card Begins
- ERG Misses Out On Tender for Transperth
- Cubic Signs Contract for Queensland Ticketing System
- OTIS Contactless Solutions Chosen by BART
- India Introduces Car Registration Certificate on a Card
- Intellect Extends Belgian Petrol Stations Deal with Banksys
- London's Oyster Program to Use Schlumberger's Easyflow Technology

Subscribe to Smart Cards Now

or visit www.smartcardgroup.com and subscribe through our online shop • Fax: +44 (0) 1273 516518

- Smart Cards Now UK £475
- Smart Cards Now Rest of World £495 • €795 • \$750

Credit Card

Number

Expiry Date

Signature

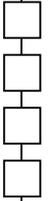
Name

Company

Address

Telephone

Email





SIM, EMV and ID Will Drive Card Market

by Jack Smith, News Editor, Smart Cards Now

High-end SIM cards will drive Smart Card market expansion in 2003 while growth in financial and ID applications will also increase demand, according to a report from Frost & Sullivan.

The research company believes that 3G is likely to create brisk demand for high-end 32K and 64K SIM cards and even 128K and an increase in orders from governments and banks will help chip card manufacturers recover from a difficult 2002.

In Western Europe, a renewal market is likely to be created with higher-end cards steadily replacing lower-end cards. There is also high growth potential due to the adoption of GSM technology and the increasing number of new subscribers in Northern and Eastern Europe, and in the Asia Pacific region, North America and Latin America.

The SIM is critical to realising secure mobile transactions over GSM networks. Simultaneously, EMV (Euro-pay/MasterCard/Visa)-compliant migration from magnetic stripe cards to Smart Cards within the financial sector is expected to provide greater opportunity to use these cards for mobile commerce.

Post 9/11, the number of government-sponsored ID projects has spiralled. Governments worldwide are assessing Smart Card-based solutions for secure identification from health cards in Taiwan, driver's licenses in India, and military ID cards in the United States to national ID cards in several Middle Eastern countries.

There is particular interest in combining Smart Cards and biometrics for secure identification while contactless Smart Cards are being identified as among the best ways to store biometric data on travel documents such as passports, visas and identity cards.

Several pilot schemes using contactless technology for transit applications are already underway. Contactless national ID projects and payment applications too are gaining momentum. Both Visa and MasterCard are backing the use of contactless technology as a faster and more convenient way to conduct payment transactions, a sign that bodes well for the Smart Card market.

In 2002, a total of 1,906.4 million Smart Cards were shipped globally, of which memory card unit shipments accounted for about 55.7% of the sales with microcontroller cards making up the remainder. Frost & Sullivan forecasts a reversal of fortunes by 2006 with microcontroller Smart Card units capturing 55.5% share of the total 2541.3 million Smart Card shipments.

With a 43.1% share, EMEA accounted for the majority of Smart Card unit shipments in 2002. The region led in both memory and microcontroller unit shipments, followed by Asia Pacific and then the Americas.

Despite painful restructuring and falling unit shipments over 2001-2002, traditional giants such as Gemplus, Schlumberger and Oberthur Card Systems continued to hold sway over global unit shipment market shares. Multi-nationals such as Giesecke & Devrient and smaller companies such as ORGA turned in strong performances.

The major competitive development was the emergence of local players especially in the Asian region such as Ming Wah, Eastcompeace, Tianjin and AMS. This trend is likely to put a further squeeze on short-term profits while intensifying competition.

Frost & Sullivan Smart Card analyst, Shalini Chowdhary, commented: "Selecting and developing strategic partnerships and alliances prior to entering a new market segment will be critical for Smart Card vendors. Specifically, vendors need to make the right partnerships to take advantage of the enormous potential of the ID and security market segments."

The report, priced at US \$5,500 is available from Frost & Sullivan at www.smartcards.frost.com



29th-30th September 2003, Optional Workshops 1st-2nd October
Churchill College, Cambridge University, UK

Smart Labels

EUROPE 2003



Europe's largest conference on smart labels
INCLUDING RFID, SMART PACKAGING AND BEYOND

“Very good.
Great opportunity to network.”
Trevor Peirce, DHL, Belgium

BOOK EARLY Sold out in 2002
238 delegates from
24 countries attended last year

Topics include

- User experiences and needs
- Case studies of RFID in the supply chain
- Applications of RFID in retail
- State of the art low cost RFID technologies

Please quote SC08 to receive 3 months access to on-line journal *Smart Labels Analyst*



Receive free
Smart Label samples

Speakers from

Wal-Mart, USA
 Hewlett-Packard, USA
 NCR, UK
 Telecom Italia, Italy
 The Manchester Airports Group, UK
 National Library Board, Singapore
 Auto-ID Center, UK
 The Dow Chemical Company, USA
 Magellan, Australia
 Nanoplex Technologies, USA
 Flint Ink, USA
 Siemens, Germany
 Transense, UK
 Tagsys, France
 AWID, USA

PLUS MANY OTHERS



Sponsored by



e.centre



INVEST